UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/043,215	01/14/2002	Sumitaka Tatsuta	8015-1001	6209

466 7590 10/27/2003

YOUNG & THOMPSON
745 SOUTH 23RD STREET 2ND FLOOR
ARLINGTON, VA 22202

EXAMINER	
CHOWDHURY, TARIFUR RASHID	
ART UNIT	**PAPER NUMBER**
2871	

DATE MAILED: 10/27/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/043,215	Applicant(s) TATSUTA ET AL.	
	Examiner Tarifur R Chowdhury	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. The filing of true English translation of the priority document JP 2001-005749, filed on 01/12/200, has been acknowledged and appreciated. Accordingly, the reference US 2003/0025856 is no longer considered as a valid prior art and thus withdrawn.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konno et al., (Konno) in view of applicant's admitted prior art (AAPA).

4. Konno discloses an optical diffusing element composed of a plurality of polymers (self-fused together) varying in refractive index (col. 1, line 63-66; col. 2, lines 60-67).

Konno differs from the claimed invention because he does not explicitly disclose that the polymer particles having a refractivity varying from the center to the periphery thereof.

The AAPA described in the present application discloses that a light diffusion element having fine particle with uniform distribution of refraction, namely a refractivity varying from the center to the periphery, is used for the purpose of using not scattering of light but refraction of light and thus provide secured optical diffusibility while providing somewhat less back scattering (pages 2-3).

The AAPA is evidence that ordinary workers in the art would find a reason, suggestion or motivation to use a light diffusion element having fine particle with uniform distribution of refraction, namely a refractivity varying from the center to the periphery.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the diffusing element of Konan such that use a light diffusion element having fine particles with uniform distribution of refraction, namely a refractivity varying from the center to the periphery so that secured optical diffusibility and less back scattering is obtained, as per the teachings of the AAPA.

Accordingly, claim 1 would have been obvious.

As to claims 6 and 11, Konno discloses the use of the optical diffusing element in a liquid crystal display such that the diffusing element is formed within the liquid crystal cell (col. 1, lines 5-10). Further, typically there are three types of liquid crystal displays such as: reflective, transmissive and transflective.

As to claims 3 and 8, Konan discloses that a transparent layer is in contact with one of the opposite surfaces of the layer of the polymer particles (col. 1, lines 63-64).

As to claims 4 and 9, applicant is claiming the product (a device) including a method (i.e. a process) of forming the transparent layer by dry-laminating method. Therefore, claims 9 and 10 are considered as "product-by-process" claims. In spite of the fact that a product-by-process claim may recite only process limitations, it is the product, which is covered by the claim and not the recited process. Further, patentability of a claim to a product does not rest merely on a difference in the method by which the product is made. Rather, it is the product itself, which must be new and unobvious (See MPEP sec 806.05(f)). Further, using a dry-laminating method to form transparent layer is common and known in the art and thus would have been obvious to avail a proven technique.

As to claims 5 and 10, Konan discloses that the polymer particles have a mean particle size between approximately 10 to 21 μm (col. 2, lines 49-50) (overlaps the claimed range).

5. Claims 2 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Konan in view of AAPA as applied to claims 1, 3-6 and 8-11 above and further in view of Wada et al., (Wada), USPAT 5,343,317.

6. Konan does not explicitly disclose the claimed glass transition temperature being lower than 100° C. However, as evidenced by Wada a polymer particle having a glass transition temperature of 60° to 160°C (overlaps the claimed temperature at 60° C to

99°C) is common and known in the art and thus would have been obvious to avail a proven temperature.

Response to Arguments

7. Applicant's arguments with respect to claims 1-11 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tarifur R Chowdhury whose telephone number is (703) 308-4115. The examiner can normally be reached on M-Th (6:30-5:00) Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on (703) 305-3492. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

T. Chowdhury
Primary Examiner
Technology Center 2800

TRC
October 21, 2003